福井大学地域環境研究教育センター研究紀要
「日本海地域の自然と環境」
No. 17, 11-16, 2010

Review of the tribes Sogdini and Leiodini (Coleoptera: Leiodidae) from Japan, part I.

Hideto Hoshina*

Abstract. I revise all Japanese species of the tribes Sogdini and Leiodini (Insecta: Coleoptera: Leiodidae). In this part I, three species belonging to those tribes, *Hinomoto* Hoshina, 2002, *Triarthron* Märkel, 1840, and *Liocyrtusa* Daffner, 1982 are redescribed.

Introduction

The subfamily Leiodinae of the family Leiodidae is composed of six tribes (Newton, 1998). In Japan, five tribes, Sogdini, Leiodini, Scotocryptini, Pseudoliodini, and Agathidiini, have been known to occur (Hoshina, 2002; Perreau, 2004). In the tribe Sogdini, two genera, *Triarthron* Märkel, 1840 and *Hinomoto* Hoshina, 2002 are recorded (Hisamatsu, 1985; Hoshina, 2002). On the other hand, in the tribe Leiodini, four genera, *Leiodes* Latreille, 1796, *Zeadolopus* Broun, 1903, *Liocyrtusa* Daffner, 1982, and *Cyrtusa* Erichson, 1842, are recorded from Japan (Hoshina, 1998; Perreau, 2004).

Recently, I had an opportunity to examine many specimens of Sogdini and Leiodini, collected from Japan and North Chishima Archipelago. After my careful examination, it has become clear that those specimens include many new or unrecorded species for Japan. I revise all Japanese species of Sogdini and Leiodini and treat two genera, *Hinomoto* and *Triarthron* of Sogdini, and one genus, *Liocyrtusa* of Leiodini, in this part I. Those genera consist of single known species. In part II and III, other genera including new species will be reviewed.

Key words: Sogdini, Leiodini, Leiodidae, Coleoptera, Japan

* Hideto Hoshina
(Department of Regional Environment, Faculty of Education & Regional Studies, Fukui University, Fukui City, 910–8507 Japan)

Materials and methods

I collected and examined as wide a range as possible of specimens of Japanese Sogdini and Leiodini. The specimens used for this study are preserved in the following institutional collections with their abbreviations: EUMJ (Entomological Laboratory, Ehime University, Matsuyama), FU (Fukui University, Fukui), HUMS (The Hokkaido University Museum, Sapporo), KU (Kyushu University, Fukuoka), NSMT (National Science Museum (Nat. Hist.), Tokyo).

Key to genera and species of Sogdini in Japan

1. Pronotum almost as long as wide (Fig. 1). . . . . *Hinomoto nihonensis* Hoshina
-. Pronotum clearly wider than long (Fig. 2). 2
2. Antennae forming a club on 9th–11th segments. . . . . *Triarthron maerkeli* Märkel
-. Antennae forming a club on 7th–11th segments. . . . . genus *Hydnobius* Schmidt (part II)

Key to genera and species of Leiodini in Japan

1. Meso– and metatibiae strongly dilated; body strongly convex. . . . . genus *Zeadolopus* Broun (part III)
-. All tibiae normal. 2
2. Antennae with 10 segments. . . . . genus *Cyrtusa* Erichson (part III)
-. Antennae with 11 segments. 3
3. Antennae with 8th segment extremely thin; elytra punctate densely (Fig. 3). . . . . *Liocyrtusa onodai* Hoshina
-. Antennae with 8th segment smaller than 7th and 9th; elytra almost bearing rows of punctures, or rarely punctate irregularly. . . . . genus *Leiodes* Latreille (part II)

Hinomoto nihonensis Hoshina, 2002

(Japanese name: Hinomoto-tamakinokomushi)
(Fig. 1)

Hinomoto nihonensis Hoshina, 2002: 8.

Specimens examined. Holotype, ♂, Shimoshidu, Sakura–City, Chiba Pref., xi. 1943, M. Kubota leg. (NSMT). Paratypes: 1♀, Nasu–Chisan Country Club (golf course), Kuroiso–City, Tochigi Pref., 3. xii. 1968, K. Tazoe leg. (NSMT); 1♂, Japan (detailed data about collecting locality is unclear; in HUMS).

Diagnosis. Coloration. Dorsum concolorous, brown or bicolorous, black on head and pronotum, and dark brown on elytra; antennae reddish brown; legs brownish; body 6.9–8.8 mm in length and about 2.4 times as long as wide (Fig. 1); head minutely punctate (Fig. 1); antennae clavate at 7th–11th segments; 1st–3rd segments longer than

wide; 4th segment almost as long as wide; the other segments wider than long; pronotum almost as long as wide and punctate as on head; elytra very sparsely punctate between striae (Fig. 1) and sparsely and transversely strigose between striae; punctures on all striae dense and distinct; hind wings fully development.

Distribution. Japan: Honshu (Chiba Pref. and Tochigi Pref.).

Note. *Hinomoto nihonensis* Hoshina is one of the largest species in the subfamily Leiodinae in the world, and can be easily separated from other leiodid Japanese species based on the body size. The present species is very rare, and no specimens have been collected since the original description.

Triarthron maerkeli Märkel, 1840

(Japanese name: Kushimomo-tamakinokomushi)
(Fig. 2)

Triarthron maerkeli Märkel, 1840: 141; Hatch, 1929: 12; Daffner, 1983: 22; Hisamatsu, 1985: 7; Perreau, 2004: 202.
See Hatch (1929) for other synonymy and references.

Specimens examined. 3♂, 1♀, Mt. Asashiki, Tsumagoi-mura, Agatsuma-gun, Gunma Pref., Honshu, 24. vii. 1979, K. Ito leg. (EUMJ); 1♂, Nopporo Forest Park, Ebetsu City, Hokkaido, 29. vi. 2000, S. Hori leg. (FIT) (FU).

Diagnosis. Dorsum almost smooth and concolorous, yellowish brown; antennae reddish brown on 1st–6th segments and yellowish brown on other segments; legs brownish; body 2.5–3.8 mm in length and about 1.9 times as long as wide (Fig. 2); head minutely punctate (Fig. 2); antennae clavate at 9th–11th segments; 1st, 3rd, and 4th segments almost as long as wide; 2nd segment longer than wide; the other segments wider than long; pronotum wider than long and punctate as on head; elytra with nine rows of punctures, and almost impunctate between rows except for small number of punctures placed beside rows; the rows consisting of punctures larger than those of head and pronotum; 9th row invisible in dorsal view; hind wings fully development; male metafemora with three small tooth on posterior margins.

Distribution. Europe and Japan (Honshu and Hokkaido).

Note. The present species was added to the Japanese fauna by Hisamatsu (1985) based on four specimens collected from Honshu, Japan. In this study, I record *T. maerkeli* for the first time from Hokkaido, Japan.

Liocyrtusa onodai Hoshina, 1998

(Japanese name: Minami-nagahime-tamakinokomushi)
(Fig. 3)

Liocyrtusa onodai Hoshina, 1998: 10; Hoshina & Kannô, 2002, 127; Perreau, 2004: 199.

Specimens examined. Holotype, ♂, Kuromi-rindô, Kurio, Yakushima Is.,

Kagoshima Pref., Kyushu, 2. iii. 1997, S. Onoda leg. (KU); 8 exs., Shôzaka, Sogisho-higashi, Ayagawa Town, Kagawa Pref., Shikoku, 30. xii. 2009, H. Fujimoto leg. (FIT) (FU); 8♂, 16♀, Mikizaki, Owase City, Mie Pref., Honshu, K. Kannô leg. (FU); 1♂, 2♀, Nopporo Forest Park, Ebetsu City, Hokkaido, 31. x. 2001, S. Hori leg. (FIT) (FU).

Diagnosis. Dorsum almost smooth and concolorous, brown or dark brown; antennae brown or light brown on 1st–6th segments and black on other segments; legs brownish; body 2.2–3.1 mm in length and about 1.6 times as long as wide (Fig. 3); head minutely and densely punctate (Fig. 3); antennae clavate at 7th–11th segments; 1st–3rd segments longer than wide; 4th segment almost as long as wide; the other segments wider than long; 8th segment extremely thin; pronotum wider than long and punctate as on head; elytra densely punctate; punctures of elytra larger than those of head and pronotum; hind wings fully development; male metafemora with a large tooth on posterior margin.

Distribution. Japan (Kyushu, Shikoku, Honshu, and Hokkaido).

Note. The present species was hitherto known to occur in Kyushu and Honshu. In this study, I record *L. onodai* for the first time from Shikoku and Hokkaido.

Acknowledgements

I wish to express my sincere gratitude to Mr. Hirobumi Fujimoto (Kagawa Pref.) and Dr. Shigehisa Hori (Historical Museum of Hokkaido, Sapporo) for their kind cooperation in loan of the specimens for the present study.

References

Daffner, H., 1983. Revision der palärktischen Arten der Tribus Leiodini Leach (Coleoptera, Leiodidae). *Folia Entomologica Hungarica*, **44 (2)**: 9–163.

Hatch, M. H., 1929. Liodidae, Clambidae. In: Junk, W. & Schenkling, S. (Eds.). Coleopterorum Catalogus, **105**: 1–100. W. Junk, Berlin.

Hisamatsu, S., 1985. Notes on some Japanese Coleoptera, I. *Transactions of the Shikoku Entomological Society*, **17**: 5–13.

Hoshina, H., 1998. First record of the genus *Liocyrtusa* (Coleoptera: Leiodidae) from Japan, with a description of a new species. *The Entomological Review of Japan*, **53**: 9–13.

Hoshina, H., 2002. A new genus of the tribe Sogdini (Coleoptera, Leiodidae, Leiodinae) from Japan, with description of a new species. *Biogeography, Tokyo,* **4**: 7–12.

Hoshina, H. & K. Kannô, 2002. Further note on *Liocyrtusa onodai* Hoshina (Coleoptera: Leiodidae: Leiodinae). *The Entomological Review of Japan*, **57**: 127–128.

Märkel, J. C. F., 1840. *Triarthron Märkelii*. *Entomologische Zeitung (Stettin)*, **1**: 141–142.

Newton, A. F., Jr., 1998. Phylogenetic problems, current classification and generic catalogue of world Leiodidae (including Cholevidae). In: P. M. Giachino & S. B. Peck (Eds.), Phylogeny and Evolution of Subterranean and Endogean Cholevidae (=Leiodidae Cholevinae). Proceedings of a Symposium (30 August, 1996, Florence,

Italy), XX International Congress of Entomology: 41–178. Atti del Museo Regionale di Scienze Naturali, Torino.
Perreau, M., 2004. Family Leiodidae, subfamily Coloninae. In: I. Löbl & A. Smetana (Eds.), Catalogue of Palaearctic Coleoptera vol. 2: 179–181. Apollo Books, Stenstrup.

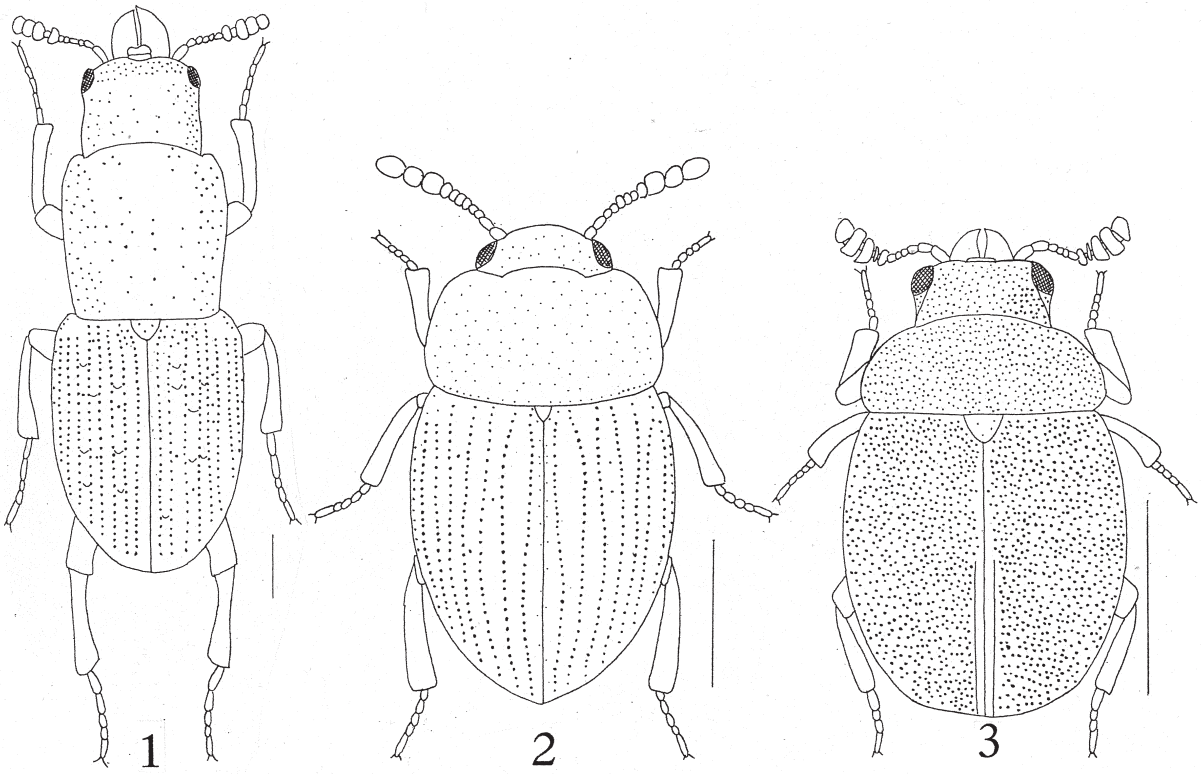
要約

保科英人：日本産タマキノコムシ科 Sogdini 族および Leiodini 族の分類学的再検討，パート１

コウチュウ目タマキノコムシ科 Sogdini 族および Leiodini 族の分類学的再検討を行った．本稿は，そのパート１にあたる．パート１では，両族に含まれる属のうち，それぞれ１種のみから構成される３属（*Hinomoto* Hoshina, 2002, *Triarthron* Märkel, 1840，および *Liocyrtusa* Daffner, 1982）を扱った．２種については，新たな分布地を記録したほか，３種の形態的特徴と，日本産 Sogdini 族および Leiodini 族の属への検索表を付した．

Explanations of Figures

Figs. 1–3, body. 1, *Hinomoto nihonensis* Hoshina. 2, *Triarthron maerkeli* Märkel. 3, *Liocyrtusa onodai* Hoshina. Each scale: 1 mm for Fig. 1, 2, and 3, respectively.


1
2
3